Appl. No. 10/045,578
Amdt. Dated October 5, 2005
Reply to Final Office Action of August 9, 2005

Attorney Docket No. 81747.0212
Customer No. 26021

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A device status monitoring system in a data processing system, the data processing system including a peripheral device connected to a host computer, the host computer running an operating system and an application capable of controlling the peripheral device, the host computer including a device control system for controlling the peripheral device through the operating system, the device control system including a first object providing a device class interface to the application and a second object providing an interface for the peripheral device to the first object, the device status monitoring system comprising:

a status change data recording unit in the second object for <u>continuously</u> recording status change data indicating <u>each sequential</u> a change in a device status to a status change recording unit.

2. (Original) The device status monitoring system of claim 1, wherein the status change data recording unit comprises:

a receiving unit for receiving status data indicating a device status from the peripheral device; and

a status change data detection unit for detecting status data that changed as status change data based on the status data received by the receiving unit and previously received status data.

3. (Original) The device status monitoring system of claim 1, wherein the status change data recording unit comprises:

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a recorded data editor for editing the status change data to status change recording data for recording to the status change recording unit.

4. (Original) The device status monitoring system of claim 3, wherein the recorded data editor comprises:

a recorded data evaluation unit for determining, based on predefined recording conditions, whether the status change data detected by the status change data detection unit is data to be recorded in the status change recording unit.

5. (Original) The device status monitoring system of claim 4, wherein the status change data includes error status and/or off-line status data; and

the recording conditions include information indicating whether the error status and/or off-line status data is to be recorded.

6. (Original) The device status monitoring system of claim 3, wherein the recorded data editor comprises:

a recorded data generating unit for converting the status change data detected by the status change data detection unit to a text message and adding time information to the text message to generate the status change recording data.

7. (Original) The device status monitoring system of claim 1, wherein the device control system is OLE for Retail POS (OPOS), the first object is a control object, and the second object is a service object.

8. (Currently Amended) A device status monitoring method for a data processing system, the data processing system including a peripheral device connected to a host computer, the host computer running an operating system and an application capable of controlling the peripheral device, the host computer including a device control system for controlling the peripheral device through the operating system, the device control system including a first object providing a

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device class interface to the application and a second object providing an interface for the peripheral device to the first object, the device status monitoring method comprising:

continuously recording, by the second object, status change data indicating each sequential a change in a device status to a status change recording unit.

9. (Original) The device status monitoring method of claim 8, wherein the status change data recording step comprises:

receiving status data indicating a device status from the peripheral device; and

detecting status data that changed as status change data based on the status data received by the receiving step and previously received status data.

10. (Original) The device status monitoring method of claim 8, wherein the status change data recording step comprises:

editing the status change data to status change recording data for recording to the status change recording unit.

11. (Original) The device status monitoring method of claim 10, wherein the status change data editing step comprises:

evaluating the status change data detected by the status change data detecting step to determine, based on predefined recording conditions, whether the status change data is data to be recorded in the status change recording unit.

12. (Original) The device status monitoring method of claim 11, wherein the status change data includes error status and/or off-line status data; and

the recording conditions include information indicating whether the error status and/or off-line status data is to be recorded.

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13. (Original) The device status monitoring method of claim 10, wherein the status change data editing step comprises:

converting the status change data detected by the status change data detecting step to a text message and adding time information to the text message to generate the status change recording data.

14. (Original) The device status monitoring method of claim 8, wherein the device control system is OLE for Retail POS (OPOS), the first object is a control object, and the second object is a service object.

15. (Original) A computer-usable medium carrying computer program instructions capable of implementing the method as described in any of claims 8 to 14.

16. (Currently Amended) An object program in a control system program, the control system program having a first object providing an interface for a device class to an application program, and a second object providing an interface for a device to the first object, the second object including the object program, the object program comprising commands for executing a process for:

receiving status data indicating a device status from the device;

detecting, as status change data, status data that changed by comparing the received status data with previously received status data;

determining, based on predefined recording conditions, whether the status change data is data to be recorded in a data recording unit;

generating status change recording data by converting the status change data to a text message and adding time information to the text message; and

continuously storing each sequential change in the status change recording data to a log file specified by the recording conditions.

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17. (Original) The object program of claim 16, wherein the status change data includes error status and/or off-line status data.

18. (Original) The object program of claim 16, wherein the application program is a POS application program, the control system is OLE for Retail POS (OPOS), the first object is a control object, and the second object is a service object.